

ABSTRACT OF THE DISCLOSURE

One embodiment of the present invention provides a method coding audio signals in a base layer and an enhancement layer comprising the steps of quantizing the audio signals in spectral lines into quantized data in a plurality of sub-bands in an order of most significant bits (MSBs) to least significant bits (LSBs), determining a plurality of scale factors corresponding to each of the sub-bands according to respective noise tolerance of each of the sub-bands, bit shifting the quantized data in the sub-bands by the respective scale factor if they exceed a threshold value, coding the quantized data in the base layer, coding the quantized data in the enhancement layer, truncating the quantized data in the enhancement layer up to respective layer size limits, de-shifting the coded data with the respective scale factors, de-quantizing the coded data, and decoding the coded data.